

Women and the Automobile in Sweden*

Merritt Polk

Institution for Interdisciplinary Studies

Section for Human Ecology

The University of Göteborg

In a car advertisement series for Peugeot that ran in the spring of 1997 in DN, GP and SvD, the car was depicted as a symbol of nature, explicitly stated in the caption to the photographs. What the photographs depict are transformations of the human body into a car, in five consecutive frame shots. The five series or transformations use the symbol of the body to represent aesthetic perfection and strength. The ads are sensual and colorful, depicting the car as being a given part of nature as much as humans are a part of nature. What is so interesting about this series is the fact that men and women's bodies are used so differently, with the male chest being transformed into a motor and the woman's hips, torso, and legs being transformed into contours of the car body parts. Men's bodies represent predominantly strength, while women's bodies represent aesthetic sensuality. The explicitness and clearly separate images that men and women's body refers to in these advertisements show the continued importance of sexual images and their associations to the automobile.

Motorized and privatized mobility is a modern social phenomenon that has changed the way individuals experience their surroundings in that distance has been made less and less important and the time needed to travel has been decreased significantly. One reason why the car is so attractive is, simply, that it is used to move individuals from place to place making the associations of movement to speed, freedom and power direct, and embedding the car with potent symbols and experiences which have increased its appeal and allure. These symbols have furthermore been more positively associated with definitions of masculinity. Mobility, also, is an important characteristic of modern and pre-modern life. Men have travelled and do travel more than women and the experience of 'other' places has been equated with knowledge and/or power. More practically, in the sense of contemporary daily mobility, access to a larger radius of possible jobs, for example, increases the chances of finding the most suitable employment and the most economical housing, while at the same time increasing the use of resources and the resultant environmental degradation. Having access to mobility in this first sense changes the relationships and opportunities that individuals experience in their lives. In the second, an ecologically sustainable transportation system in Sweden can not be based, as current transportation is today, on the private use of the automobile. Though automobility has many positive dimensions which increase personal freedom and flexibility, and economic prosperity, it also has an encompassing, negative impact on the natural environment. Furthermore, because of the importance of automobility for individual's daily lives, its impact on social equality must also be taken into consideration.

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When automobility first began in the late 1800's and early 1900's, the sexual roles of men and women in the United States and Europe were more strictly defined than they are today in Sweden. The development and use of a technical artefact, while often considered being outside of how sexuality is defined, is created within a culture mirroring dominant beliefs and values of a specific time period. Trends in automobile advertisements though close to a century later than the beginnings of automobility, still show stereotypical images for men and women. Women's passive sexuality is used to sell cars while men's active sexuality is assumed in their buying preferences. Typical car advertisements for women appeal more to her as a mother and homemaker than to her need for power, speed and status as are often seen for men. Research done by Virginia Scharff in the United States has shown that gasoline driven vehicles in the early 1900's were seen to be more appropriate for men because of their speed and power, while the electric vehicle was more appropriate for women because it was cleaner, easier to start, had a shorter range, and was slower. It represented a more feminine means of transportation in the sense that it coincided with how women were supposed to behave during this time period. Later, during the inception of the car in Sweden in the 1950's, the car was used predominantly by the rich, and more by men than by women, mirroring a similar trajectory of the development of mass automobility in other industrialized countries. Despite the large differences between the United States in the early 1900's and post-war Europe, the gasoline driven car was initially seen as a male status symbol in both time-periods, whether exclusively for the rich, or later as a symbol of consumerism and the post-war lifestyle. It was a 'hope-filled' symbol in the later time-period, a proof of how normal modern life could be after the destruction of war and an economic solution to the industrial destruction caused by war. Because of the importance of automobility for economic and political goals, the automobile must be seen as a complex technological symbol and not just as a mode of transportation. Furthermore, the associations to masculinity also affected how automobility was appropriated by men and women. How does the inclusion of masculinity within automobility affect contemporary men and women?

The largest difference between men and women's mobility patterns is in the number of kilometers that are travelled. From the National Swedish Travel Survey of 1994/5 it was seen that men are travelling 61% of the kilometers that are travelled in Sweden, and women the remaining 39%.¹ In other words, men are travelling, on average, 1.5 times as far as women are. Men and women are both travelling a majority of their total kilometers by car. Of the total kilometers travelled, 69% are made by car. Men and women make approximately the same number of trips per day with a slight difference of men making 0.2 more trips per day. Men are making a higher number of trips by car in comparison to women. Of men's trips, 64% are made by car, and for women 54% are made by car. The other noteworthy differences in men and women's travel patterns are that men are driving a much larger percentage of their trips than women drive, while women are passengers to a much greater extent than men. Women also walk and use public transportation more often than men do. Both men and women are using the bicycle to approximately the same extent. Men's use of

¹ This figure is taken from the 1994 Swedish National travel Survey. For more travel statistics concerning women's and men's use of the car, see Polk (1996).

the car overshadows their use of other travel modes. Men drive, on average, over 50% of their trips, while women drive for 30% of theirs.

The differences between the number of kilometers that men and women travel by car are evident in cohabiting and single households, in households with children and without children and in the different age groups. The main exception to this is that men and women over 65 use the car to approximately the same extent. Women with older children also tend to travel more per day than women with younger, though their average daily travel lengths by car are still shorter than those of their corresponding men. By looking at different groups of men and women, the use of the car is seen to differ by sex, and not only by other factors such as age, income and educational levels though these factors also affect the number of kilometers that are driven per day. As noted earlier, this fact is surprising because it is hard to purport that women have fewer travel needs or live lifestyles that are less demanding of personal mobility than her corresponding men.

In order to explore the differences between men and women's use of the car, many factors and perspectives need to be taken into consideration. The symbolic importance of the car has already been mentioned, as well as its impact on the natural environment and its consumer appeal, both individual and national. In order to try and grasp this myriad of possible influences which may affect men and women's car use, a questionnaire survey was sent out to 1,500 individuals in Gothenburg in the Spring of 1996, the results of which will be presented here. Three possible dimensions have been identified and will be studied in the following. What will be discussed first is if car use is dependent upon not only access to the car, referring to the presence of the car in a household, but also on its actual availability to each adult individual within the household. Second, some experiences associated with the automobile will be analysed to see if they differ between men and women. Third, the attitudes that are held by men and women concerning the place of automobility in Sweden, and the impact automobility has on the natural environment will be tested for differences between men and women. In conclusion, the results will be combined to see what factors can not be excluded when explaining why men and women use the car differently and what the political implications of these results could be.

The Availability of the car to men and women

A good place to begin to see why men and women may use the car differently is by looking at the license holding rates of individuals and by looking at how many cars there are per household and licensed driver. The use of the car is clearly dependent upon the presence of a car and on an individual's holding of a driver's license. Women in Sweden, especially older women, are licensed to a lesser extent than men. In the younger age groups, this trend is changing. Despite this being an important factor, licensed men and women in households with one car still showed large differences in their daily use of the car. Socio-economic variables are often used to explain the differences in men and women's travel patterns, especially of the work trip. However, results from travel surveys do not explain all of the differences in car use by men and women in Sweden. There must be other factors outside of *access* to the car (license rates, and presence of car in household) that affect its actual use. What could these be? Another possibility is seeing how practically *available* the car is to

licensed individuals in cohabiting households with one car. It is within these households that car use is limited and must be shared by two adults. In this situation, do men and women share the decisions that are made concerning car use? Is the car shared with friends and family, or used solely by the individual? Does the monopolization of the car by one individual in the household successfully limit its use for others?

The most striking differences between men and women's car use in cohabiting households with one car is that men, to a much greater extent than women, say that it is they who makes the decisions concerning the car use in their households. Though car use is mostly shared in these households (with 47% of the men and 54% of the women responding that they share car use decisions with their spouse), 43% of the men responded that they most often made the decisions concerning car use, while only 10% of the women answered the same. There was also a larger number of women who answered that it was their spouse who made the decisions concerning car use in their household, while very few of the men responded in this way. What can be concluded from these results is that even while women live in households with a car, they are seldom the only individual in the household who determines car use; women share car use decisions with their husbands or delegate this decision making to their spouse to a much greater extent than men do. This is as true of households with children as it is for households without. Though women with children do respond that they participate more often in the decisions concerning car use, the differences are still comparable to what is seen in households without children.

Does this mean that women use the car less because their spouse prioritizes his sole use? In the National Swedish travel Survey, men drove alone to a greater extent than women did. There was no information concerning the sharing of the car with family and friends besides what could be extrapolated from the data, for example that there were two licensed driver's in the household. To explore this question, the respondents in the Gothenburg study were asked if they shared their car with other individuals. A majority of the respondents said that they shared their car with family members or friends. What is further substantiated is that it is men more often than women, who respond that they are the only users of the car that they drive. Of the individuals in the study group who said they drove a car, 36% of the men and 19% of the women said that they were the only users of the car that they drove. Women, to a greater extent than men, responded that they shared the car with friends and spouse. This confirms the results from the National Travel Survey and further, show the differences in men and women's monopolization of the car which they drive.

Why do men respond that they are more in control of the car in cohabiting households with one car? The socialization process which affects how technologies are seen as being appropriate or not for men and women grow out of an individuals' family situation as a child. Are people socialized into associating the car more with men than with women because this is what they experienced as children? To test this possibility, the respondents were asked who used the car in their childhood. Since automobility was a post-war phenomenon in Sweden, it was not a part of the older respondents' childhoods to the same extent that it was to individuals born after the 1950's. However, in all age groups and showing no differences between men and women, the father was given as the dominant user of the car during the

childhood of the respondents. This is even true in the younger age groups, where even individuals born in the 1970's still responded that it was more often their father who used the car. Car use in the families of the younger respondents was answered as being shared by both parents to a greater extent than older individuals. The association of car use during childhood with the father could be another possible reason why men, to a much greater degree than women, are making the decisions concerning car use in families with one car. Men and women may be following the example set by their father's and mother's, who also used the car in this way.

Another aspect of men using the car, is that women might very well need or want to use the car more than they do, but do not simply because it is not available to them to the same extent that it is available to men. Living in a household with one car does not mean that the car is available to both adults as has been shown. In the Gothenburg study, in cohabiting households with one car, for example, men use the car to work for 80% of their work trips and women for 55% of theirs. Women are instead using public transportation and biking or walking to get to work. It is only in households with two cars that women can be seen to have as much access to a car as men do. These households make up only 26% of the total population in Sweden currently. In these cases, the car is used to a much greater extent by women, though not to the same extent as by men.

The use of the car has been discussed by looking at who makes the decisions concerning car use, who shares the car that is used, and what mode is used to work. Despite younger and middle-aged women being licensed to approximately the same extent as men, and living in cohabiting households with a car to a similar extent, there are large differences in how available the car is to men and women. It can be suggested that the car is seen as being more within the male sphere of control; that one car in a household is usually seen as the man's car, and is therefore used to a greater extent by men than it is by women. Even when men and women have similar access to a car, it has been seen that it is more available to men. This is an important point to remember. While statistics say that 80% of the households in Sweden have one or more cars, this number reflects the availability of the car to men, and not to women.

Experiences of the automobile

Experiences associated with the car is another dimension that may be able to explain why men and women use the car differently. As was seen when talking about men and women's access to the car, the car is not as available to women as it is to men. Since the relationship of individuals to a car are very complex and many faceted, the car will also be looked at now in terms of how it is experienced to see if this may offer other possible reasons why men and women use the car differently. A car may be used more if it is experienced, for example, as comfortable, attractive and easy to use. A car may also be used more if it is something that is not purely instrumental for the user, if it is seen as something which an individual identifies with or something which is experienced as positive, for example as attractive or as a symbol of status.

One place to start when looking at how the car is experienced is how one feels while driving. In Gothenburg, almost 90% of the respondents said that they experienced driving as practical, and almost 80% as representing freedom. Over half of the respondents also said that it was fun to drive. The differences between men and women are minimal. There were fewer women than men who thought that driving was practical and free, though the same amount found it fun. The largest differences between men and women were seen in how driving was experienced as relaxing or dangerous. Men said that they experienced driving as relaxing more often than women did. Women said that they experienced driving as dangerous more often than men did. While there are some differences in how men and women experience the car, these differences are minimal and can not be used to explain the differences in car use.

What do men and women think about their driving abilities? For the study group, around 70% of the respondents did not think there was a difference in men and women's driving ability. There were an equal number of women who thought that women were better, as there were men who thought that men were better. While there are some differences in how the car is experienced while driving, there are more similarities between men and women than not. Women said they experienced driving as more dangerous than men did, while more men responded that they experienced it as relaxing. There seem to be, however, minimal differences in how men and women see themselves as competent drivers or not. On this level, there do not seem to be any conclusive differences between men and women's experience of driving, nor of how they rate the competence of men and women as drivers.

Anyone, who has driven a car a lot, at some point, has experienced some sort of problem with the car. This might be a simple thing that is easily adjusted or something relating to upkeep that requires a little more attention. What many drivers hope to avoid is needing to pay expensive repairs bills, or being stranded on a back road late at night in freezing weather. Nevertheless, what if this does happen? Does this situation affect men and women differently? Are men and women equally knowledgeable about how their cars work? If an individual understands the basic functioning of an automobile, can do the minor upkeep and repairs that are required, and is well versed enough in car shop-talk, he/she runs a much better chance of saving money and of having a car that works well and is dependable. For individuals who do not know the basics of car repairs, the functioning and upkeep of their car must be left to someone else. Car repairs have been seen as a traditionally masculine realm. Nevertheless, since women are driving more and more, have they acquired the knowledge that is connected to this use?

The difference in men and women's self-proclaimed knowledge of car repairs in Sweden is striking. Over 80% of the men said that they knew something about car repairs, while only 30% of the women answered in this way. This follows very well the stereotypical view of car repairs being more associated with men than with women. Nevertheless, does this mean that knowledge concerning the car is gendered? It is possible that men are more prone to answer that they know something about car repairs, while women are less inclined to answer affirmatively. To further study the experience that individuals have with car repairs, the respondents were also asked to mark the repairs that they had done on a car and to approximate how much they had done these repairs. These answers also confirm the prior.

There are extreme differences in the answers that men and women give when questioned how frequently they have done simple car repairs such as checking the radiator, oil, tire pressure and doing minor maintenance such as changing the oil, tires and spark plugs. For comparison, the respondents were also asked how often they had washed the car and cleaned out the inside. The only question where men and women respond similarly is when asked if they had cleaned the inside of the car.

As has been discussed in the introduction, the car has different types of symbolic meanings that can be seen to be associated with definitions of masculinity and femininity. While it is difficult to empirically analyze the nuances of meanings and values that are associated to the car, it may be possible to see if the car is seen as an important symbol for the respondents. In Gothenburg, almost all of the respondents answered that they thought that people were proud of their cars. A large majority also said that the car was a status symbol in society, though very few responded that it was a status symbol for them. The main difference between men and women were seen in the much greater number of men who respond that they are attracted to certain cars, and in the larger number of women who felt guilty when using a car. If this means that men identify more with cars or experience some sort of eroticism from certain cars is impossible to know. What this can be interpreted to mean is that there were significantly more men than women who responded that they experienced the automobile in terms that did not exclude referring to a technological artefact as something which they found 'attractive'.

Attitudes towards automobility

Another important dimension which needs to be empirically tested is the importance of attitudes and how they can be used to understand men and women's use of the car. Attitudes can be held towards any number of objects, issues or problems. In the case of automobility, the types of attitudes that could be studied are potentially endless. Because the work at hand is concerned with the use of the car, attitudes will be limited to those which are seen to be relevant or influential to car use in particular and which could be adequately answered in a survey of the type used. The differences between men and women's attitudes towards automobility and their concern for environmental problems stemming from automobility and for the environment in general will be discussed in the following.

Automobility is seen as being a necessary part of modern society by a strong majority of the sample population. Despite the fact that there was such large agreement as to the need for automobility, there was also large support for the statement which pointed out the environmental degradation of car use. Statements which supported automobility found more support than those which entailed a reduction in the use of the car. Surprisingly, though there were many respondents who answered that having a car was a human right, there were significantly fewer who answered that this should be applied to Sweden. The answers overall show a good deal of positive attitudes towards automobility, despite its environmental impact, and less willingness to reduce 'our' mobility in the future.

This picture changes somewhat when men and women are looked at as separate groups. All of the differences between men and women's attitudes towards automobility are large. Men express more support than women for all of the statements which are positive to automobility,

and women express more support for all of the statements which are critical of automobility. Because of the size of these differences, it is concluded that men and women in Göteborg differ in their attitudes towards the place and importance of automobility. Women are more critical of automobility, expressing opinions which point to its negative impact. Men, on the other hand, are much more supportive of car possession and use, despite an expressed awareness of its impact on the natural environment.

It is important to note that when women were asked about the environmental impact of automobility on a general level, they supported the statement that 'the natural environment could not deal with the problems that are caused by automobility', significantly more than men did. More specific environmental impacts of automobility also received different support from men and women. Women responded, in general, that they were more concerned with the environmental impact of the car than men. There were significantly more women than men who thought that automobility was an important cause of air pollution, the greenhouse effect, noise pollution and acid rain.

How can these differences in attitudes towards automobility between men and women be explained? One line of research which has much relevance for this study is the work done in environmental attitudes and gender. The importance of sex, or the differences between men and women, has received a certain amount of study though there are no clear results that can be applied directly to this study of the automobile. In a recent review article of the subject, by Davidson and Freudenburg (1996), it was seen that differences between men and women were most significant for local environmental issues or problems. In studies that dealt with more regional or global environmental issues, the results were varied. Automobility has perhaps historically been seen as more of a local environmental problem which has changed character in the last years and is now being discussed as a global environmental problem. For this reason, it can not be defined as a local or global environmental issue because it has been portrayed as both. In summary, much of the international literature that deals with men and women's attitudes towards the environment, both empirical and theoretical, can be stated as showing modest support for women being more environmentally concerned than men are. How does this compare to the work done in Sweden?

In Gothenburg women showed more concern than men for environmental problems such as: industrial wastes, nuclear waste, car exhaust, coastal oil spills, household waste, extinction of plants and animals, the use of chemicals in farming, and the thinning of the ozone layer. The problem that both men and women noted as the most serious was the thinning of the ozone layer, followed by industrial emissions. That which was judged as being the least serious was the problem of the disposal of household waste. While women respond that they feel that these problems are more of a threat than men do, they rank them in a similar way with the exception of nuclear waste, which women rank as being one of the most serious environmental problems. Men instead rank industrial wastes and emissions as being more serious than nuclear waste.

How are general environmental problems related to those associated with the automobile? Both men and women rank car exhaust as one of the less threatening of the environmental

problems they were asked to respond to (see list above), though women respond that they see it as more of a threat than men do. It must be noted, however, that on a scale from 1 to 10 ('very little threat' to 'very large threat') only household waste was rated under 7. All of the respondents in Göteborg, both men and women, responded that environmental problems are something of a serious threat to Sweden. When asked to respond to the risk that these problems posed for their life, again, women responded with higher ratings of car emissions as a risk for their lives.

What can be concluded from these results for the discussion at hand? These answers support the tendency for women to respond that they are more concerned with the environmental impact of automobility, and are therefore more critical of the impact of the automobile on the natural environment. This also supports international studies which saw that women were more concerned with environmental problems than men. The implications of these results are, however, not at all as clear. While attitude studies are valuable tools for seeing how individuals respond to certain problems or issues, they are no more than a way of gauging tendencies within a population. The biggest problem is using attitude studies to predict behavior or explain why individuals behave in certain ways. As the approach used here exemplifies, there are many factors which influence and steer individuals and their daily choices. Even looking at one issue, the complexity is near impossible to grasp. What can be gained from this work is an overall orientation to the differences in men and women's attitudes towards automobility and their experiences with the car, and the areas that may warrant further study.

Conclusions

As has been seen so far, in looking at the automobile from the various perspectives mentioned here, there are differences and similarities in men and women's relationships to their cars. In the first section, access and availability were discussed where results from the questionnaire study show that the car is more available to men and women in household situations where car access has been assumed to be equal. In experiences associated with the car, men and women's experience of driving and of how they view the driving abilities of other men and women were seen to be very similar, with few differences between men and women. The flexibility of the car is confirmed as being important to the respondents in the answers that note the car as being practical and fun to use. With other experiences of the car, a more sexually segregated pattern emerges where women and men respond that they have very different knowledge of how a car works and what repairs they have done. This leads the line of reasoning back to the separate spheres of men and women, where working on a car is reinforced as being much more normal for men. For whatever reasons, women do not have anywhere near the experience or knowledge of cars that men do. Finally, the attitudes surrounding car use and its impact on the natural environment also show differences in men and women's concern and rating of environmental threats. Women are more critical of automobility and are seen to be generally more concerned with environmental problems, not only with nuclear power, but also with other problems which are both local and global. In conclusion, there do seem to be some substantial differences between men and women's relationships to the automobile that encompass many different dimensions of car use and

which need to be taken into consideration when exploring why men use the car more than women do.

The differences in how men and women use the car have consequences not only on opportunities for better work, but also on the extent that individuals degrade the natural environment. If Sweden is to ever reach an ecologically sustainable transportation system, current acceptable levels of transportation for different members of the population must obviously be questioned. Some current proposals for the next national transportation plan in Sweden emphasize economic measures, such as gasoline and road taxes, because they are seen as being both effective in reducing emissions, and politically feasible in implementation. Technological developments combined with taxes are one suggestion for reaching the goals for reduced emissions. Such initiatives would impact the financially weaker groups in society which includes an over-representation of women, children and the elderly, thus resulting in limiting their travel. Since these groups already travel less by car, such measures would only increase the inequalities that are already obvious today and place further financial pressures on lower income individuals and households.

If sustainability is taken seriously, automobility is only a viable transportation system for a very limited group. This group today is most likely to be men. Because of how available the car is to men, how men experience having more knowledge about the car, and due to men having much more positive attitudes towards automobility, men can be interpreted as having more barriers to reducing their use of the car than women would have. If this is so, then measures designed to reduce car use must take this fact into consideration or they will not be effective in reducing the use of the car in the groups where it is used the most. The political implications of this is that a sustainable transportation system, and the implementation of it, must not only take the environment into consideration, but also strive to attain a transportation system that is not elitist and only accessible for individuals who have financial resources and who are not willing to reduce their use of the car for the sake of environmental issues.

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